CORPORATER

EPM Suite 3.0

Technical product documentation

CORPORATER
Business in Control

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Technical product documentation

Corporater Enterprise Management Suite v3.0

This technical product documentation describes the technical requirements that must be met in order to implement Corporater Enterprise Management Suite v3.0, the technical solutions Corporater utilizes and delivers, as well as technical product specification.

Product specification

Integration and technical platform

All Corporater products are fully integrated.

Corporater Enterprise Management requires MS SQL server 2000 or Oracle 9i database system or later. The software can be run on Windows, Unix, or Linux platform, depending on choice of database. The solution is visualized using a browser, e.g. Internet Explorer 6.0 or later or Firefox 2.0.

Corporater software has been developed based on Java SDK 6 or the client and server side. This is the leading platform for developing large, scalable web applications. Java is platform independent and can be run on most known operating systems. The following application servers are currently supported:

- Jboss 4.0.5.GA
- Oracle AS 10g (10.1.2.0)
- BEA WebLogic Server 10 (if running java 6 on the server).
- IBM WebSphere 6.1 (if running java 6 on the server).

Standards

Technical: Corporater products are based on open standards established by international standardizing organizations such as ISO and W3C, as well as more closed industry standards from Microsoft and SUN (Java). Business: We follow BSCOL's (Balanced Scorecard Collaborative) standards and have achieved full certification according to Kaplan and Norton's standards for Balanced Scorecard.

No proprietary elements

There are no proprietary elements in Corporater software.

Data collection and manipulation

Automated data collection

Data collection can be performed using Corporater Transformer at fixed times, using the built in "scheduler". Several jobs with dependency can be set up. Dependency in this case means that one job must be completed before the next is started. Corporater Transformer (ETL tool) has been developed in Java and has integrated metadata handling with the other Corporater products. Integration to data sources is through the use of JDBC type 4 drivers (comparable to an OLE DB driver in a Windows environment). Database drivers are included with the product and need no extra installation. MS Excel's native format is supported. Note that Excel files may not be corrupt. This means that data should be organized in columns with meaningful column headings.

Manual data registration

Data can be registered manually via a Web interface. There are special authorization procedures for manual data input. It is also possible to register data manually directly in the administrator software. Corporater Forms makes it possible to create your own schemas where data may be filled in by users. Surveyor has powerful functions for distribution of schemas and reminders about unanswered schemas.

Logging of errors and deviations

Corporater Transformer logs errors and deviations in separate files. With this tool you can set up your own warning and error messages that are reported if a run has not been performed according to plan or if there are new occurrences. Expanded error logging and control of memory usage has now been implemented. Logging and errors are reported to separate files.

Preparation for Internet presentation

The solution can be prepared for presentation of results on Internet. Standard xhtml is used. In addition, some java script is used on the client side.

Technical platform and scalability

Hardware and operating system requirements

Client users:	No special requirements to processor 512 MB RAM Internet Explorer 6.0 or later Firefox 2.0 or later
Client Administrator: (minimum)	Intel Pentium IV 2.4 GHz 512 MB RAM Windows 2000/XP
Client Administrator: (recommended)	Intel Pentium IV 2.4 GHz 1 GB RAM Windows 2000/XP
Application server: (minimum)	Intel Pentium 2.4 GHz 1GB RAM Windows 2000/2003 Server/(XP) or Linux/Solaris
Application server: (recommended)	Intel Pentium IV 3.2 GHz 4 GB RAM Windows 2000/2003 Server/(XP) or Linux/Solaris

In especially large configurations (amounts of data and number of users) hardware requirements may increase considerably. It is not possible to give general recommendations; each case must be evaluated individually. In such cases the server should be based on 64-bits architecture.

Database server: (Minimum)	Intel Pentium 2.4 GHz 1 GB RAM Windows 2000/2003 Server/(XP) or Linux/Oracle
Database server: (Recommended)	Intel Pentium IV 2.8 GHz 4 GB RAM Windows 2000/2003 Server/(XP) or Linux/Oracle

Software requirements

Client user: Internet Explorer 6.0 or later, or Firefox 2.0 Client Administrator: Java Runtime Environment (JRE 6)

Database system

MS SQL Server 2000/2005. Alternatively Oracle 9i or later is also supported. Communication with the database server is via JDBC type 4 database driver, which is a complete driver programmed in Java. This driver communicates directly with the database server. Otherwise, a technique called “connection pooling” is used. That means that only a few database connections can serve many users.

LAN/WAN

LAN Backbone (between application server and database server) 10 Mb – recommended 100 Mb. LAN (between workbench, application server and database server) 10 Mb. WAN no special requirements, must tolerate ordinary HTTP traffic

Scalability

The system is now very scalable and will tolerate many simultaneous queries. A sophisticated caching of data structures and pre-calculation of computations is now built in, and few resources are therefore required during operation, except when updating new organizations, nodes and node data, in which case data structures are rebuilt. This rarely happens during operation.

Security

Security mechanisms

In version 3.0 you can choose between alternative login methods: either directly using user ID and password or based on LDAP server. With direct login the encrypted password is stored in the database. A user is given access rights according to which group he/she a member of. A user can belong to more than one group. A user’s total access rights are determined by the group where he/she has the most comprehensive rights to information resources.

It is possible to set up the application servers so that so that login can be rerouted to an LDAP v3 server. This can be configured based on “user roles” in the LDAP server. ”User roles” in LDAP can be mapped to groups in Corporater solution.

The following LDAPv3 Servers are supported:

- Microsoft Active Directory Server with support for Kerberos authorization. This means automatic login via Internet Explorer using Challenge-response protocol with SPNEGO support, by the same method Microsoft uses for Single Sign-On to IIS.
- OpenLDAP

Access model

Corporater has a very flexible access model built into its solution. The administrator maintains access levels.

Integration with Microsoft products

MS Exchange server

Corporater BSC server is directly integrated with MS Exchange Server via the product’s SMTP connector.

Integration with MS Office products

Users will normally have access to the system via a web client. Integration with MS Excel is given via “HTTP upload” of Excel worksheets that the user can continue to work on. Similar mechanisms are being developed for MS Word, where RTF documents can be uploaded with information from Corporater Scorecard database. Documents in PDF format can also be uploaded.

Documentation included in the solution

The following documentation is included in the solution:

- User manual with examples and areas of use
- Installation documentation
- System documentation
- Operating documentation
- LDAP documentation